

K1 31
force to any one of said discrete counter surfaces of the first code locking disc and the second code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the second code locking disc,

a locking bar having a locking position in which it prevents turning of the cylinder relative to the lock body and a releasing position in which it is received in the channel formed by the peripheral notches of the locking discs and releases the cylinder for turning relative to the lock body, and

a key insertable in the lock when the locking discs are at the initial position, the key having a set of combination surfaces corresponding respectively to the locking discs, for engaging a counter surface of each locking disc and applying turning force thereto when the key is inserted in the lock and is turned in the first turning direction, so that the locking discs are turned in the first turning direction to their respective opening positions,

and wherein the combination surface corresponding to said first code locking disc is provided with a first of at least two combination values and the combination surface corresponding to said second code locking disc is provided with a second of said at least two combination values, and the first and second combination values are such that upon inserting the key in the key passage and turning the key through a first turning angle in the first turning direction, the combination surface corresponding to the first code locking disc engages the first counter surface bounding the key opening of the first code locking disc and the combination surface corresponding to the second code locking disc clears the first counter surface bounding the key opening of the second code locking disc, and upon turning of the key in the first turning direction through a further turning angle the combination surface corresponding to the second code locking disc engages the second counter surface bounding the key opening of the second code locking disc.

D2 K1 12. (Amended) A key blank of a key for operating a cylinder lock comprising:

a lock body,

a turnable lock cylinder located inside the lock body and having an axial slot,

a set of code locking discs located inside the lock cylinder, each locking disc having at least one peripheral

K1 ~~22~~
notch and a key opening and being turnable in the lock body in a first turning direction about a turning axis by application of turning force to a counter surface bounding the key opening, each locking disc having an initial position, such that when all the locking discs are in their respective initial positions the key openings form a key passage, and an opening position in which its peripheral notch is at the position of the axial slot in the lock cylinder, such that when all the locking discs are in their respective opening positions the peripheral notches form a uniform channel at the position of the axial slot, the key openings of at least first and second code locking discs each being bounded by at least first and second discrete counter surfaces such that the first code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the first code locking disc and the second code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the second code locking disc, and

a locking bar having a locking position in which it prevents turning of the cylinder relative to the lock body and a releasing position in which it is received in the channel formed by the peripheral notches of the locking discs and releases the cylinder for turning relative to the lock body, wherein the key blank includes an elongate shank and the basic form of the shank of the key blank in the perpendicular cross-sectional plane of the shank, exclusive of any possible profile grooves or corresponding grooves extending longitudinally of the shank of the key, is substantially rectangular except for at least one bevel surface for providing at least one combination surface at least one corner.

~~23~~ K1 20. (Twice Amended) A key for operating a cylinder lock comprising:

- a lock body,
- a turnable lock cylinder located inside the lock body and having an axial slot,
- a set of code locking discs located inside the lock cylinder, each locking disc having at least one peripheral notch and a key opening and being turnable in the lock body in

E123

a first turning direction about a turning axis by application of turning force to a counter surface bounding the key opening, each locking disc having an initial position, such that when all the locking discs are in their respective initial positions the key openings form a key passage, and an opening position in which its peripheral notch is at the position of the axial slot in the lock cylinder, such that when all the locking discs are in their respective opening positions the peripheral notches form a uniform channel at the position of the axial slot, the key openings of at least first and second code locking discs each being bounded by at least first and second discrete counter surfaces such that the first code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the first code locking disc and the second code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the second code locking disc, and

a locking bar having a locking position in which it prevents turning of the cylinder relative to the lock body and a releasing position in which it is received in the channel formed by the peripheral notches of the locking discs and releases the cylinder for turning relative to the lock body, the key having an elongate shank of which the basic form in the perpendicular cross-sectional plane of the shank, exclusive of any possible profile grooves or corresponding grooves extending longitudinally of the shank of the key, is substantially rectangular except for at least one bevel surface for providing combination surfaces corresponding to the code locking discs, said one bevel surface providing at least first and second combination surfaces corresponding to the first and second code locking discs respectively and having said first and second combination values respectively, and wherein the first combination surface differs from the second combination surface with respect to the combination of the angle of the cut and the length of the cut in said one bevel surface.

Claims 28 and 29, cancel.

Add new claims as follows:

~~DOI~~ 30. (New) A cylinder lock and key combination according to claim 1, wherein said two discrete counter surfaces bounding the key opening of the first code locking disc are within a common quadrant of the first code locking disc.

31. (New) A cylinder lock and key combination comprising:
a lock body,
a turnable lock cylinder located inside the lock body and having an axial slot,
a set of code locking discs located inside the lock cylinder, each locking disc having at least one peripheral notch and a key opening and being turnable in the lock body in a first turning direction by application of turning force to a counter surface bounding the key opening, each locking disc being at an initial position and being turnable in the first direction to an opening position in which its peripheral notch is at the position of the axial slot in the lock cylinder, such that when all the locking discs are in their respective opening positions the peripheral notches form a uniform channel at the position of the axial slot, the key openings of at least first and second code locking discs each being bounded by at least first and second discrete counter surfaces such that the first code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the first code locking disc and the second code locking disc can be turned in said first turning direction by application of turning force to any one of said discrete counter surfaces of the second code locking disc,
a locking bar having a locking position in which it prevents turning of the cylinder relative to the lock body and a releasing position in which it is received in the channel formed by the peripheral notches of the locking discs and releases the cylinder for turning relative to the lock body, and
a key in the lock, the key having a set of combination surfaces corresponding respectively to the locking discs, for engaging a counter surface of each locking disc and applying turning force thereto when the key is turned in the first turning direction, and wherein the combination surface corresponding to said first code locking disc is provided with a first of at least two combination values and the combination surface corresponding to said second code locking disc is provided with a second of said at least